may comprise any type of sensor or device which may be able to detect the presence of an obstruction object in the path of a door **11** and/or the presence of an obstruction object proximate to the door **11**, and the door sensor **16** may communicate this data to the sensor engine **97**B.

[0047] If an obstruction object is not detected, the method **500** may proceed to step **506** in which the door **11** motivated into the closed position **72**. If an obstruction object is detected, the method **500** may proceed to step **504** and/or **505**.

[0048] In some embodiments, if an obstruction object is detected in decision block **503**, the method **500** may continue to step **504** in which the movement of the door **11** into the closed position is stopped for a period of time. Preferably, the sensor engine **97**B may communicate with the actuator engine **97**A to stop the door **11** movement for a period of time as measured by a timer engine **97**C. A period of time may comprise any length of time, but preferably a period of time may be approximately between 1.0 seconds and 60 seconds. In further embodiments, a period of time may be approximately between 0.1 seconds and 5.0 minutes. After step **504**, the method **500** may continue to step **502** or to step **505**.

[0049] In step **505**, the door **11** may be returned toward the open position **72** for a period of time. Optionally, the period of time may be sufficient for the door **11** to be moved into or returned to the open position **71**. Preferably, the sensor engine **97**B may communicate with the actuator engine **97**A to return the door **11** towards the open position **71** if an obstruction is detected in decision block **503** or after step **504**. In preferred embodiments, the door **11** movement may be first stopped for a period of time as measured by a timer engine **97**C when an obstruction object in the path of the door to the closed position is detected in step **504**, and then the actuator engine **97**A may motivate the door **11** towards the open position **71** for a period of time as measured by a timer engine **97**C (in step **505**) after the period of time in step **504** has ended.

[0050] After step **505**, the method **500** may continue to step **502**, and the method **500** may proceed until the door **11** is motivated into the closed position **72** in step **506**, after which the method **500** may finish **507**.

[0051] While some exemplary shapes and sizes have been provided for elements of the system **100**, it should be understood to one of ordinary skill in the art that the door **11**, actuator **12**, rails **13**, and any other element described herein may be configured in a plurality of sizes and shapes including "T" shaped, "X" shaped, square shaped, rectangular shaped, cylinder shaped, cuboid shaped, hexagonal prism shaped, triangular prism shaped, or any other geometric or non-geometric shape, including combinations of shapes. It is not intended herein to mention all the possible alternatives, equivalent forms or ramifications of the invention. It is understood that the terms and proposed shapes used herein are merely descriptive, rather than limiting, and that various changes, such as to size and shape, may be made without departing from the spirit or scope of the invention.

[0052] Additionally, while some materials have been provided, in other embodiments, the elements that comprise the system **100** may be made from or may comprise durable materials such as aluminum, steel, other metals and metal alloys, wood, hard rubbers, hard plastics, fiber reinforced plastics, carbon fiber, fiber glass, resins, polymers or any other suitable materials including combinations of materials. Additionally, one or more elements may be made from or may comprise durable and slightly flexible materials such as soft plastics, silicone, soft rubbers, or any other suitable materials including combinations of materials. In some embodiments, one or more of the elements that comprise the system **100** may be coupled or connected together with heat bonding, chemical bonding, adhesives, clasp type fasteners, clip type fasteners, rivet type fasteners, threaded type fasteners, other types of fasteners, or any other suitable joining method. In other embodiments, one or more of the elements that comprise the system **100** may be coupled or removably connected by being press fit or snap fit together, by one or more fasteners such as hook and loop type or Velcro® fasteners, magnetic type fasteners, threaded type fasteners, sealable tongue and groove fasteners, snap fasteners, clip type fasteners, clasp type fasteners, ratchet type fasteners, a push-to-lock type connection method, a turn-to-lock type connection method, a slide-to-lock type connection method or any other suitable temporary connection method as one reasonably skilled in the art could envision to serve the same function. In further embodiments, one or more of the elements that comprise the system **100** may be coupled by being one of connected to and integrally formed with another element of the system **100**.

[0053] Although the present invention has been illustrated and described herein with reference to preferred embodiments and specific examples thereof, it will be readily apparent to those of ordinary skill in the art that other embodiments and examples may perform similar functions and/or achieve like results. All such equivalent embodiments and examples are within the spirit and scope of the present invention, are contemplated thereby, and are intended to be covered by the following claims.

What is claimed is:

1. A computer implemented animal enclosure safe door system, the system comprising:

a door movable between an open position and a closed position;

an actuator operable to motivate the door between the open position and the closed position;

a computing platform having a processor, a memory in communication with the processor;

actuator logic stored in the memory, executable by the processor and configured to operate the actuator to move the door between the open position and the closed position; and

sensor logic stored in the memory, executable by the processor and configured to detect an obstruction object in the path of the door to the closed position, wherein the sensor logic communicates with the actuator engine to stop the door movement for a period of time when an obstruction object in the path of the door to the closed position is detected.

2. The system of claim **1**, wherein the sensor logic communicates with the actuator engine to motivate the door into the open position after an obstruction object in the path of the door to the closed position is detected.

3. The system of **1**, wherein the door movement is first stopped for a period of time when an obstruction object in the path of the door to the closed position is detected, and wherein the actuator engine motivates the door into the open position after the period of time has ended.

4. The system of claim **1**, wherein the period of time is between 0.1 seconds and 5.0 minutes.